



PCT OPERATIONS

FACSIMILE TRANSMISSION COVER SHEET

DATE: May 10, 2001

TO: Julie

TELEPHONE: _____

FAX NO.: 703 243-6410

FROM: Barbara

TELEPHONE: 703 305-3231

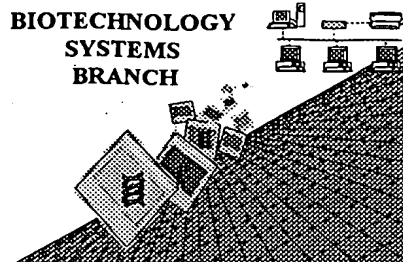
FAX NO.: 703-308-4785 OR 703-305-3230

MESSAGE: _____

NUMBER OF PAGES 10 (INCLUDING THIS PAGE)

BC

RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/673,400

Source: PCT 09

Date Processed by STIC: 1/23/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin30help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/673,400

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 ☐ Wrapped Aminos The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 ☒ Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 ☒ Misaligned Amino Acid Numbering The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 ☒ Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 ☐ Variable Length Sequence(s) _____ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
- 7 ☐ PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 8 ☐ Skipped Sequences (OLD RULES) Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 ☐ Skipped Sequences (NEW RULES) Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 10 ☐ Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 ☐ Use of <213>Organism (NEW RULES) Sequence(s) _____ are missing this mandatory field or its response.
- 12 ☐ Use of <220>Feature (NEW RULES) Sequence(s) _____ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 ☐ PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

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AGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/673,400

DATE: 01/23/2001

TIME: 10:54:59

Input Set: I673400.RAW

same env

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40	1				5					10				15		
41	Asp	Pro	His	Ala	Thr	Gln	Arg	Asn	Ser	Ala	Glu	Ala	Arg	Gly	Thr	Me
42				20					25					30		
43	Asp	Gly	Arg	Val	Gln	Leu	Met	Lys	Ala	Leu	Leu	Ala	Gly	Pro	Leu	Ar
44			35					40					45			
45	Pro	Ala	Ala	Arg	Arg	Trp	Arg	Asn	Pro	Ile	Pro	Phe	Pro	Glu	Thr	Ph
46		50					55					60				
47	Asp	Gly	Asp	Thr	Asp	Arg	Leu	Pro	Glu	Phe	Ile	Val	Gln	Thr	Cys	Se
48	65					70					75					8
49	Tyr	Met	Phe	Val	Asp	Glu	Asn	Thr	Phe	Ser	Asn	Asp	Ala	Leu	Lys	Va
--> 50					85					90					95	
51	Thr	Phe	Leu	Ile	Thr	Arg	Leu	Thr	Gly	Pro	Ala	Leu	Gln	Trp	Val	Il
52				100					105					110		
53	Pro	Tyr	Ile	Arg	Lys	Glu	Ser	Pro	Leu	Leu	Asn	Asp	Tyr	Arg	Gly	Ph
54			115					120					125			
55	Leu	Ala	Glu	Met	Lys	Arg	Val	Phe	Gly	Trp	Glu	Glu	Asp	Glu	Asp	Ph
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60	<213>	homo sapiens														
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65				20						25					30	
66		Gly	Leu	Glu	Val	Leu	Val	Leu	Leu	Pro	Ser	Lys	Asp	Ser	Leu	His
67				35						40				45		
68		Gly	Gln	Lys	Ala	Pro	Val	Ile	Ile	Glu	Gln	Gly	Ala	Leu	Leu	Pro
69			50					55					60			
70		Val	Gly	Asp	His	Pro	Leu	Gln	Gly	Trp	Pro	Arg	Glu	Ala	Gly	Asp
71		65				70					75					8
72		Glu	Arg	His	Leu	Gln	Gly	Val	Val	Gly	Glu	Arg	Val	Leu	Val	His
--> 73					85					90					95	
74		His	Val	Gly	Ala	Arg	Leu	His	Asp	Glu	Leu	Arg	Glu	Ser	Val	Gly
75				100						105					110	
76		Ser	Val	Lys	Arg	Leu	Gly	Lys	Gly	Asn	Arg	Val	Pro	Pro	Ala	Thr
77				115						120				125		
78		Arg	Gly	Pro	Glu	Gly	Pro	Gly	Gln	Glu	Gly	Leu	His	Gln	Leu	His
79			130					135					140			
80		Thr	Val	His	Arg	Ala	Ala	Arg	Leu	Arg	Gly	Val	Ser	Leu	Gly	Cys
81							150					155				16
82		Gly	Val	Ser	Ala	Lys	Ala	Ser	Pro	Glu	Ala	His	Val	Glu	Gly	Gly
--> 83						165					170					175
84		Pro	Gly													

85 <210> 40

86 <211> 89

AGE: 3

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/673,400

 DATE: 01/23/2001
 TIME: 10:54:59

Input Set: I673400.RAW

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 88 <213> homo sapiens
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 90 Lys Leu Thr Gly Ile Asn Thr Gly Cys Arg Asn Met Leu Ala Leu Cy
 91 1 5 10 15
 92 Ile Arg Gly His Ala Gln Gln Ile Gln Glu Ile Tyr Leu Ala Thr Ph
 93 20 25 30
 94 Ser Arg Lys Gly Thr Leu Gly Ile Ile His Tyr Ile Leu Glu Val Ph
 95 35 40 45
 96 Leu Gly Phe Phe Phe Phe Phe Leu Arg Gln Ser Cys Cys Ile Ala Gl
 97 50 55 60
 98 Ala Gly Ser Val Val Ala Gln Ser Gln Leu Ile Ala Ser Ser Ile Th
 99 65 70 75 8
 100 Gln Gly Leu Ser Asn Pro Pro Thr Leu
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102 <210> 41
 103 <211> 95
 104 <212> PRT
 105 <213> homo sapiens
 106 <400> 41
 107 Ile Val Thr Trp Arg Lys Val Pro Met Ser Leu Cys Gln Arg Pro Pr
 108 1 5 10 15
 109 Pro Phe Val Arg Ile Gly Ile Phe Arg Leu Leu Lys Gly Leu Ala Hi
 110 20 25 30
 111 Ile Arg Cys Asp Leu Phe Ile Pro Val Val Met Glu Gly His Ile Cy
 112 35 40 45
 113 Gln Ser Leu Glu Ser Ala Lys Ala Gly Thr Arg Phe Pro Gly Pro Gl
 114 50 55 60
 115 Trp Gly Cys Ala Asn Pro Arg Glu Leu Gly Cys Lys Phe Val Lys As
 116 65 70 75 8
 117 Gln His His Val Trp Gln Leu Ser Ile Gly Ala Arg Ser Leu Pro
 --> 118 85 90 95

119 <210> 42
 120 <211> 154
 121 <212> PRT
 122 <213> homo sapiens
 123 <400> 42
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 125 1 5 10 15
 126 Gly Leu Thr Ser Ser Gly Asn Ile Thr Phe Ser Trp Ala Glu Met Le
 127 20 25 30
 128 Leu Pro Ala Leu Lys Gln His Ser Val Leu Lys Thr Ser Trp Gln Al
 129 35 40 45
 130 Pro Gly Ser Asn Thr Gln Leu Pro Asn Met Met Leu Ile Leu His Gl
 131 50 55 60
 132 Phe Ala Thr Gln Phe Ser Arg Val Cys Thr Pro Pro Leu Trp Ala Gl
 133 65 70 75 8
 134 Glu Pro Gly Pro Gly Leu Arg Arg Leu Gln Ala Leu Ala Asp Val Al

AGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/673,400

 DATE: 01/23/2001
 TIME: 10:54:59

Input Set: I673400.RAW

same

-->	135					85					90					95	
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	137				100					105					110		
	138	Leu	Lys	Glu	Ser	Glu	Tyr	Pro	Asn	Pro	His	Lys	Arg	Arg	Gly	Thr	Le
	139			115					120					125			
	140	Ala	Lys	Thr	His	Gly	Asn	Phe	Pro	Pro	Ser	Asn	Asp	Leu	Asp	Arg	Ar
	141		130					135					140				
	142	Ala	Thr	Gln	Asp	Ser	Pro	Ser	Cys	Ser	Val						
	143	145					150										

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147	<213>	homo sapiens															
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150		1				5					10					15	
151		Val	Asn	Ala	Leu	Gly	Thr	Ile	Trp	Lys	Thr	Gly	Ser	Cys	Pro	Gln	Ph
152					20					25					30		
153		Leu	Pro	Lys	Leu	Asp	Ser	Leu	Ser	Gly	Cys	Pro	Lys	Ser	Leu	Ile	Pr
154				35					40					45			
155		Gly	Pro	Ala	Ser	Pro	Thr	Pro	Val	Thr	Pro	Pro	Pro	Ala	Pro	Gly	Pr
156			50					55					60				
157		Ser	Leu	His	Pro	Arg	Ser	Pro	Pro	Ser	Gly	Ala	His	Pro	Pro	Pro	Gl
158		65				70						75					8
159		Asn	Ser	Arg	Arg	Ala	Ala	Arg									
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164	<213>	homo sapiens															
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167		1				5					10					15	
168		Thr	Asp	Pro	Arg	Ser	Met	Asn	Ser	Arg	Val	Phe	Ile	Gly	Asn	Leu	As
169					20					25					30		
170		Thr	Leu	Val	Val	Lys	Lys	Ser	Asp	Val	Glu	Ala	Ile	Phe	Ser	Lys	Ty
171				35					40					45			
172		Gly	Lys	Ile	Val	Gly	Cys	Ser	Val	His	Lys	Gly	Phe	Ala	Phe	Val	Gl
173			50				55					60					
174		Tyr	Val	Asn	Glu	Arg	Asn	Ala	Arg	Ala	Ala	Val	Ala	Gly	Glu	Asp	Gl
175		65				70					75						8
176		Arg	Met	Ile	Ala	Gly	Gln	Val	Leu	Asp	Ile	Asn	Leu	Ala	Ala	Glu	Pr
-->	177					85					90					95	
	178	Lys	Val	Asn	Arg	Gly	Lys	Ala	Gly	Val	Lys	Arg	Ser	Ala	Ala	Glu	Me
	179				100					105					110		
	180	Tyr	Gly	Ser	Ser	Phe	Asp	Leu	Asp	Tyr	Asp	Phe	Gln	Arg	Asp	Tyr	Ty
	181			115					120					125			
	182	Asp	Arg	Met	Tyr	Ser	Tyr	Pro	Ala	Arg	Val	Pro	Pro	Pro	Pro	Pro	Il

AGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/673,400

 DATE: 01/23/2001
 TIME: 10:54:59
same

Input Set: I673400.RAW

183		130				135		140									
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185	145					150					155					16	
186	Ser	Arg	Arg	Gly	Lys	Ser	Gly	Phe	Asn	Ser	Lys	Ser	Gly	Gln	Arg	Gl	
--> 187					165					170					175		
188	Ser	Ser	Lys	Ser	Gly	Lys	Leu	Lys	Gly	Asp	Asp	Leu	Gln	Ala	Ile	Ly	
189				180					185					190			
190	Lys	Glu	Leu	Thr	Gln	Ile	Lys	Gln	Lys	Val	Asp	Ser	Leu	Leu	Glu	As	
191			195					200					205				
192	Leu	Glu	Lys	Ile	Glu	Lys	Glu	Gln	Ser	Lys	Gln	Ala	Val	Glu	Met	Ly	
193			210				215					220					
194	Asn	Asp	Lys	Ser	Glu	Glu	Glu	Gln	Ser	Ser	Ser	Ser	Val	Lys	Lys	As	
195	225					230					235					24	
196	Glu	Thr	Asn	Val	Lys	Met	Glu	Ser	Glu	Gly	Gly	Ala	Asp	Asp	Ser	Al	
--> 197					245					250					255		
198	Glu	Glu	Gly	Asp	Leu	Leu	Asp	Asp	Asp	Asp	Asn	Glu	Asp	Arg	Gly	As	
199				260					265					270			
200	Asp	Gln	Leu	Glu	Leu	Ile	Lys	Asp	Asp	Glu	Lys	Glu	Ala	Glu	Glu	Gl	
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204	<210>	54															
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207	<213>	homo sapiens															
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211		Ala	Ser	Phe	Ser	Ser	Ser	Leu	Ile	Asn	Ser	Ser	Trp	Ser	Ser	Pro	Ar
212					20					25					30		
213		Ser	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Arg	Ser	Pro	Ser	Ser	Ala	Glu	Se
214				35					40					45			
215		Ser	Ala	Pro	Pro	Ser	Asp	Ser	Ile	Phe	Thr	Leu	Val	Ser	Ser	Phe	Ph
216		50				55						60					
217		Thr	Glu	Leu	Leu	Leu	Cys	Ser	Ser	Ser	Asp	Leu	Ser	Phe	Phe	Ile	Se
218		65				70					75					8	
219		Thr	Ala	Cys	Leu	Leu	Cys	Ser	Phe	Ser	Ile	Phe	Ser	Arg	Phe	Ser	Ar
--> 220					85					90					95		
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222					100					105					110		

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225	<212>	PRT															
226	<213>	homo sapiens															
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229		1				5				10					15		
230		Phe	Ile	Ile	Val	Tyr	Phe	Lys	Leu	Cys	Phe	Thr	Ala	Ser	Ser	Thr	Ly

AGE: 6

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/673,400

DATE: 01/23/2001
TIME: 10:54:59

Input Set: I673400.RAW

same

231				20					25					30		
232	Pro	Leu	Glu	Cys	Thr	Arg	Tyr	Ile	Phe	Leu	Gly	Val	Ile	Ile	Met	Me
233				35					40					45		
234	His	Thr	Asn	Thr	Thr	Leu	Leu	Lys	Leu	Tyr	Phe	Ile	Glu	Met	His	Va
235				50				55					60			
236	Ala	Leu	Arg	Ser	Gln	Leu	Asp	Ile	Glu	Trp	Arg	Leu	Phe	Gln	Asn	Gl
237				65			70					75				8
238	Phe	Tyr	Ile	Leu	Met	Lys	Val	Trp	Glu	Val	Tyr	Pro	Leu	Cys	Leu	Ph
--> 239					85					90					95	
240	Ile	Ser	Ala	Leu	Trp	Ser	Ser	Trp	His	Pro	Phe					
241				100					105							
242																
--> 243																

1
12 *delete at end of file*

AGE: 7

VERIFICATION SUMMARY
PATENT APPLICATION US/09/673,400

DATE: 01/23/2001
TIME: 10:54:59

Input Set: I673400.RAW

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50	E	Invalid/Missing Amino Acid Numbering	85
73	E	Invalid/Missing Amino Acid Numbering	85
83	E	Invalid/Missing Amino Acid Numbering	165
101	E	Invalid/Missing Amino Acid Numbering	85
118	E	Invalid/Missing Amino Acid Numbering	85
135	E	Invalid/Missing Amino Acid Numbering	85
160	E	Invalid/Missing Amino Acid Numbering	85
177	E	Invalid/Missing Amino Acid Numbering	85
187	E	Invalid/Missing Amino Acid Numbering	165
197	E	Invalid/Missing Amino Acid Numbering	245
220	E	Invalid/Missing Amino Acid Numbering	85
239	E	Invalid/Missing Amino Acid Numbering	85
243	E	Invalid/Missing Amino Acid Numbering	12